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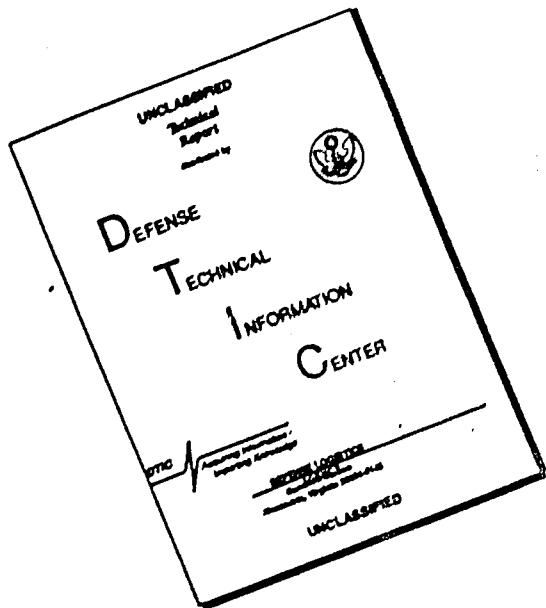
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WADD TECHNICAL NOTE 61-44

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Maneuver Load Data From C-130 Aircraft

Lawrence Phillips

STRUCTURES BRANCH
FLIGHT DYNAMICS LABORATORY

MARCH 1961

WRIGHT AIR DEVELOPMENT DIVISION

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Maneuver Load Data From C-130 Aircraft

Lawrence Phillips

Structures Branch
Flight Dynamics Laboratory

March 1961

Project No. 1367
Task No. 13637

WRIGHT AIR DEVELOPMENT DIVISION
AIR RESEARCH AND DEVELOPMENT COMMAND
UNITED STATES AIR FORCE
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

FOR EWORD

This report was prepared in the Structural Loads Section, Structures Branch, Flight Dynamics Laboratory, Aeromechanics Division, Directorate of Advanced Systems Technology, Wright Air Development Division, Wright-Patterson Air Force Base, Ohio. Data acquisition and processing were accomplished by the University of Dayton Research Institute (UDRI), Dayton, Ohio, under Air Force Contract AF 33(616)-5406 (follow-on 6719), Research and Development Project 1367, "Structural Design Criteria," Task 13637, "Collection and Statistical Analysis of Structural Flight Data." Mr. Lawrence Phillips of the Flight Dynamics Laboratory was project engineer in charge of the basic research and development work which were performed by the UDRI.

The data upon which this report is based were collected on C-130A and B aircraft while performing normal missions. These aircraft were based at Sewart Air Force Base from June 1959 to June 1960.

Acknowledgement is made to Mr. James Gallico and Mr. John Nash of UDRI for the assistance provided in the preparation of the data and the report.

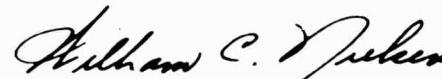
ABSTRACT

This report presents structural flight load data from C-130A and B aircraft performing normal operations and analyses of the data. This information is intended for use in determining design criteria for future flight vehicles and in estimating the effect of these missions on a structure of this type in terms of structural fatigue and estimated life.

PUBLICATION REVIEW

This report has been reviewed and is approved.

FOR THE COMMANDER:



WILLIAM C. NIELSEN
Colonel, USAF
Chief, Flight Dynamics Laboratory

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SECTION I

INTRODUCTION

A flight load recording program on C-130 aircraft assigned to the Tactical Air Command was initiated by WADD as part of the continuous effort to collect structural loads data which are used as a basis for establishing and refining structural design criteria.

The flight loads data presented in this report were collected during normal operations of C-130A and B aircraft stationed at Sewart Air Force Base, Tennessee. The useful data collected on the C-130A and B aircraft from June 1959 to June 1960 totaled, respectively, 528.3 and 548.7 hours.



Figure 1. C-130 Aircraft

SECTION II

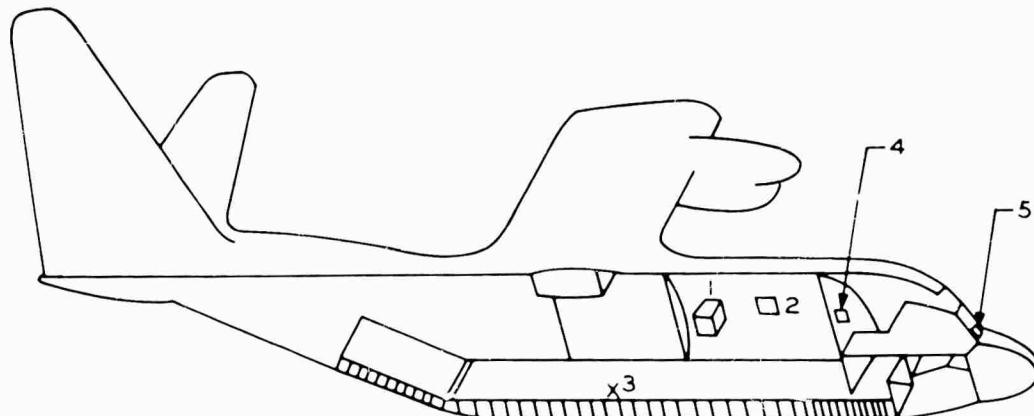
DISCUSSION

A. Data Recording System

The Hathaway Flight Analyzers were installed in each of fifteen aircraft. The Flight Analyzer is an instrument which records a number of variable quantities during the flight of an aircraft; these are: normal acceleration, airspeed, and altitude, which are recorded simultaneously versus time on a single chart. Recording is done on a special chart with dimensions of 9 inches wide by 50 feet long and is driven at a speed of 120 inches per hour. The traces are impressed on the chart by electrical discharges from styli which are actuated by the effects of

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sensing elements. This instrument has a frequency response flat to approximately 5 cps.



1. HATHAWAY FLIGHT ANALYZER
2. CARGO OUTLET BOX & CIRCUIT BREAKER
3. APPROXIMATE CENTER OF GRAVITY
4. APPROXIMATE POINT OF STATIC LINE CONNECTION
5. APPROXIMATE POINT OF PITOT LINE CONNECTION

Figure 2. Sectional Drawing of the C-130 Aircraft Depicting the Positioning of the Hathaway Flight Analyzer, Components, and the Approximate Center of Gravity

B. Data Processing

Desired information was extracted from the Flight Analyzer charts either by manual graphite transcriptions to a Mark Sense card or by employing the semiautomatic Benson-Lehner reader. Subsequently, as the Mark Sense cards were passed through the IBM 519, the graphite markings sensitized a device for the punching of holes representing the magnitudes of the original transcriptions. The Benson-Lehner reader converted the analog form of the trace deflections into digital information, transcribing the extracted and modified data into paper tape and/or IBM cards. Then the punched cards and/or tape were fed into a digital electronic computer, the Burroughs 205, for the performance of all computational tasks. Other equipment employed in the data processing included the IBM 101 Statistical Sorter and the IBM 407 Tabulator.

Deviations of the normal load factor trace which departed from either of two threshold levels and endured for two seconds or more before returning to the threshold level were interpreted as being attributed to the maneuvering effect. All other deviations were attributed to gusts and were not read.

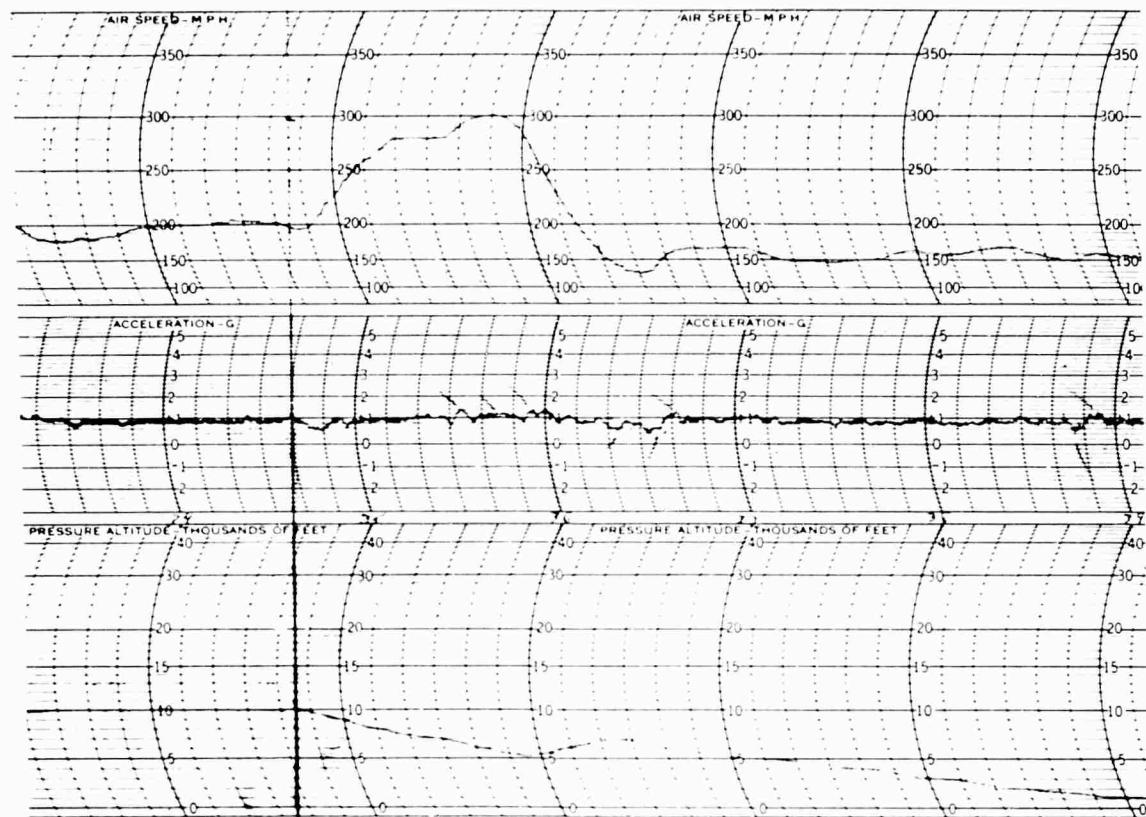


Figure 3. Sample of a Portion of the Hathaway Flight Analyzer Chart

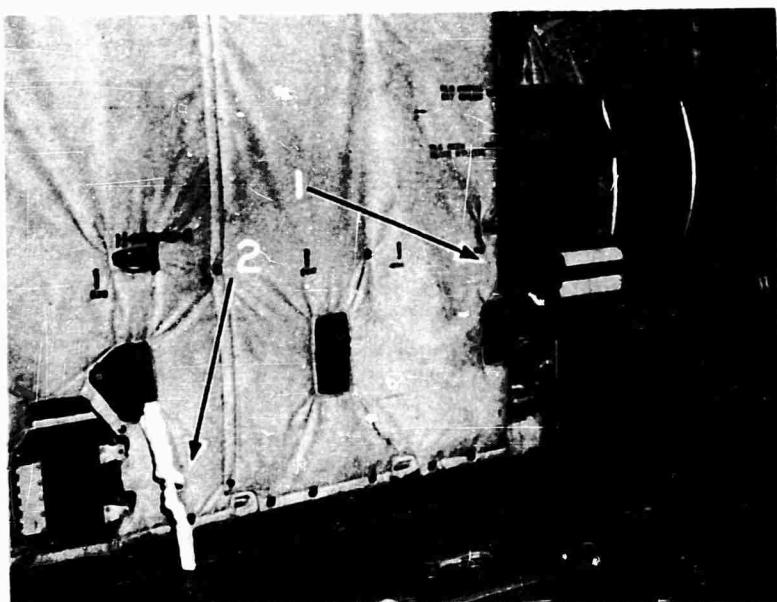


Figure 4. View of the
Hathaway Flight Ana-
lyzer Installation (1)
and the Approximate
Center of Gravity
Position (2)

Positive and negative threshold levels were established, respectively, at 1.2 and 0.8 g's. Only the maxima of such deviations were read.

Data recording and data processing results are within \pm 7% of the actual values.

C. Methods of Analysis

Probability curves were constructed using the cumulative frequency of occurrence of a load factor in excess of a given load factor experienced as a function of time, i.e., the number of hours of flight time necessary before one such load factor is expected to occur. These values of flight time were plotted on semi-log graph paper against the given load factor, and a curve was drawn through the points.

SECTION III

DATA PRESENTATION

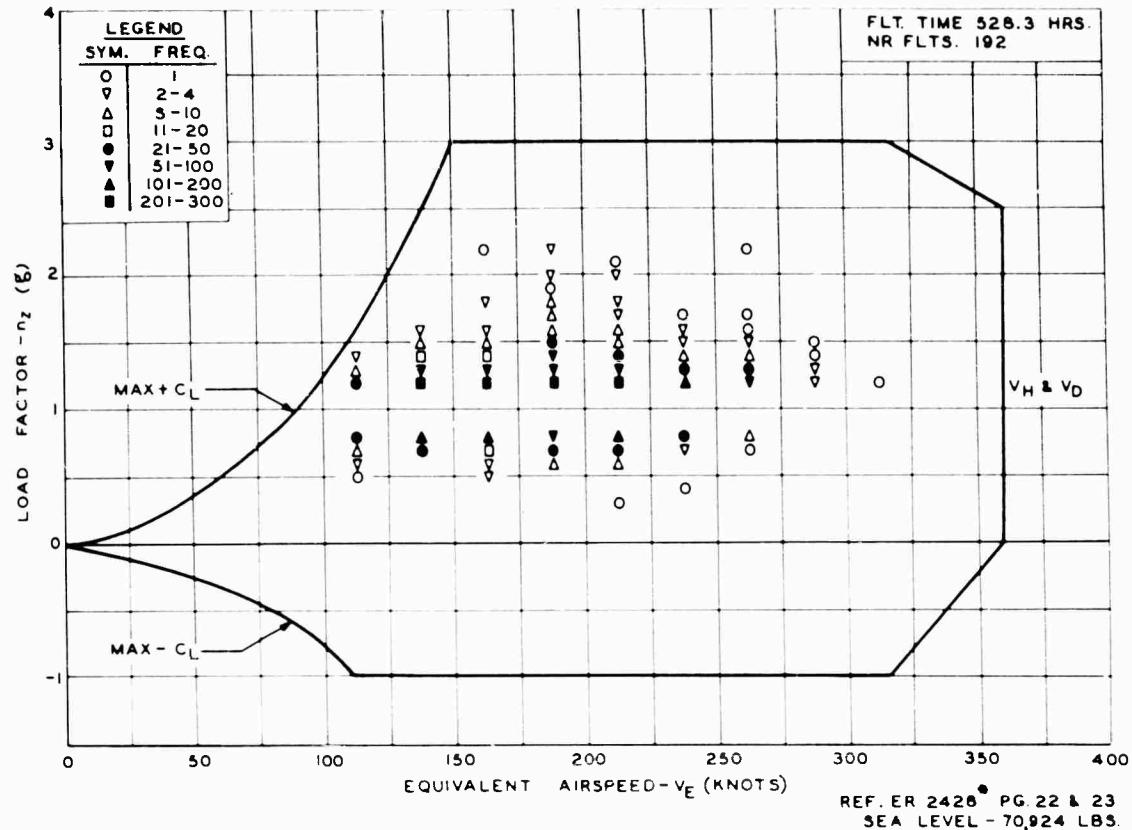
The recorded maneuver load factors of the C-130A and B are plotted on design V-n diagrams in Figures 5 and 6, respectively. These diagrams show that the instrumented aircraft did not exceed the limits of the design positive and negative load factors during the 1077 hours flown in this recording program. To illustrate further the operational comparisons of the two models of C-130 aircraft, histograms showing the percentage of flight time spent at selected airspeed and altitude ranges are presented in Figures 8 and 9. The histograms show that the C-130B, which was designed for optimum cruise conditions, spent a greater percentage of time at higher airspeed (250 to 400 knots) and altitude (20,000 to 35,000 feet) ranges than did the C-130A, which was designed for optimum performance characteristics. Probability curves showing the rate of occurrence of maneuver load factors are plotted in Figure 7. This figure shows that C-130B aircraft were subjected to a greater frequency of occurrence of load factors in the range of 1.5 to 2.0 g's than were the C-130A aircraft.

Tabulations of the distribution of maneuver load factors by equivalent airspeed in selected altitude and gross weight ranges are presented in Tables 1 through 4 for the C-130A aircraft and in Tables 5 through 8 for the C-130B aircraft. In Tables 1 through 8 the airspeed values given are the mid-points of 25-knot intervals, i.e., 187 knots represents the mid-point of the range of 175 to 199 knots. Also, the load factor values given represent the mid-point of 1-g ranges, i.e., 1.5 g represents the mid-point of the range of 1.45 to 1.54 g's. The exceptions to this are the threshold values, .8 and 1.2 g's, which represent the beginning points of the ranges of .8 to .75 g's and 1.2 to 1.24 g's.

SECTION IV

CONCLUSIONS

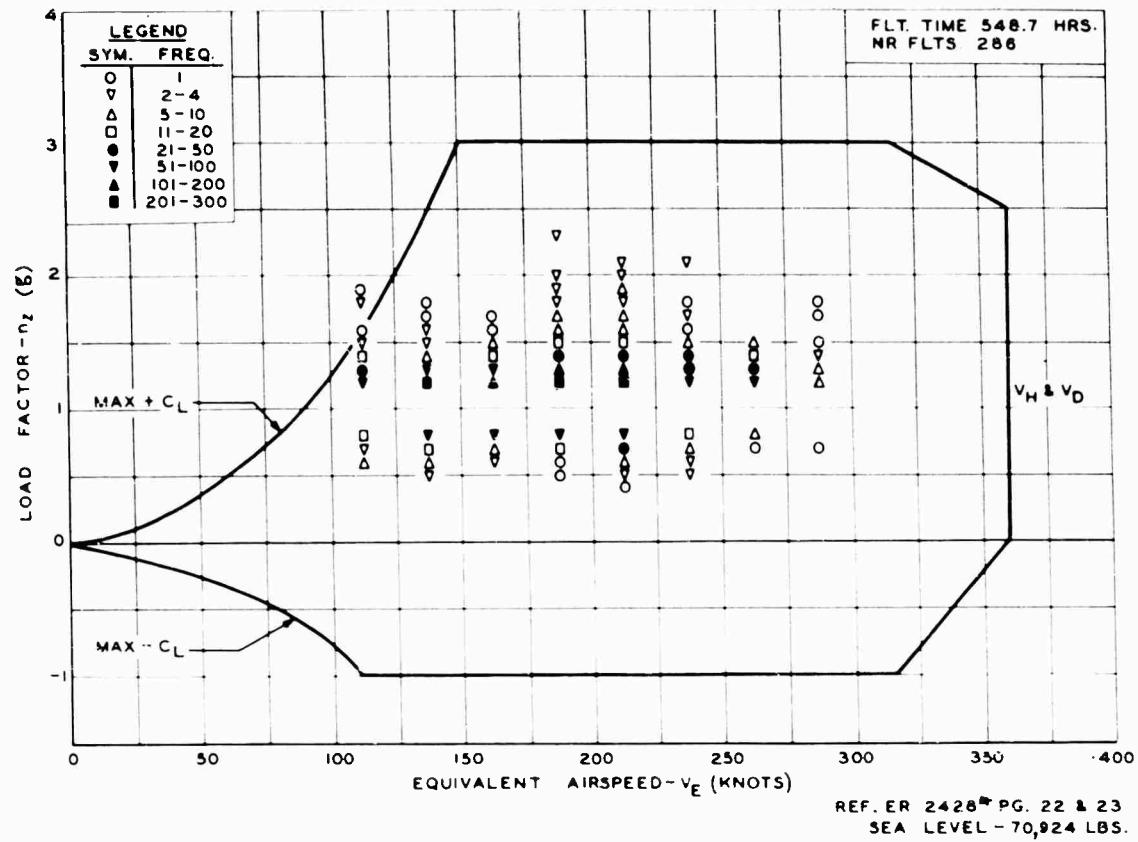
1. The instrumented aircraft did not exceed the limit design load factors during the 1077 hours flown during this recording program.
2. The C-130B aircraft spent a greater percentage of time at the higher airspeed (250 to 400 knots) and altitude (20,000 to 35,000 feet) ranges than did the C-130A aircraft.
3. The C-130B aircraft were subjected to a greater frequency of occurrence of load factors in the range of 1.5 to 2.0 g's than were the C-130A aircraft.
4. The C-130 data contained herein are considered adequate for performing a fatigue analysis.



v_E KNOTS	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	TOTAL
112			1	3	5	25	27	8	2										69
137				2	113	269	84	20	5	2									514
162			3	3	17	117	223	72	14	7	3		2					1	462
187				8	27	100	297	95	53	23	8	5	6	1	2		2	625	
212	1			7	36	152	292	83	25	7	3	4		2	1			620	
237					4	25	139	43	5	2	3	1						223	
262					1	7	55	23	8	3	1	1						98	
287						4	3	1	1									9	
312							1											1	
TOTAL	1	1	4	19	111	539	1307	409	128	48	24	10	12	1	4	1	4	2621	

Figure 5. C-130A V-n Diagram and Tabulation of Maneuvers

*Published by Lockheed Aircraft Corp.



V_E KNOTS	LOAD FACTOR - n_z (E)																		TOTAL
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.8	1.7	1.6	1.9	2.0	2.1	2.2	.3	
112																			149
137																			371
162																			345
187																			478
212																			559
237																			180
262																			132
287																			25
TOTAL	1	7	23	91	320	1070	438	151	55	28	24	13	8	8	6	2	2238		

Figure 6. C-130B V-n Diagram and Tabulation of Maneuvers

*Published by Lockheed Aircraft Corp.

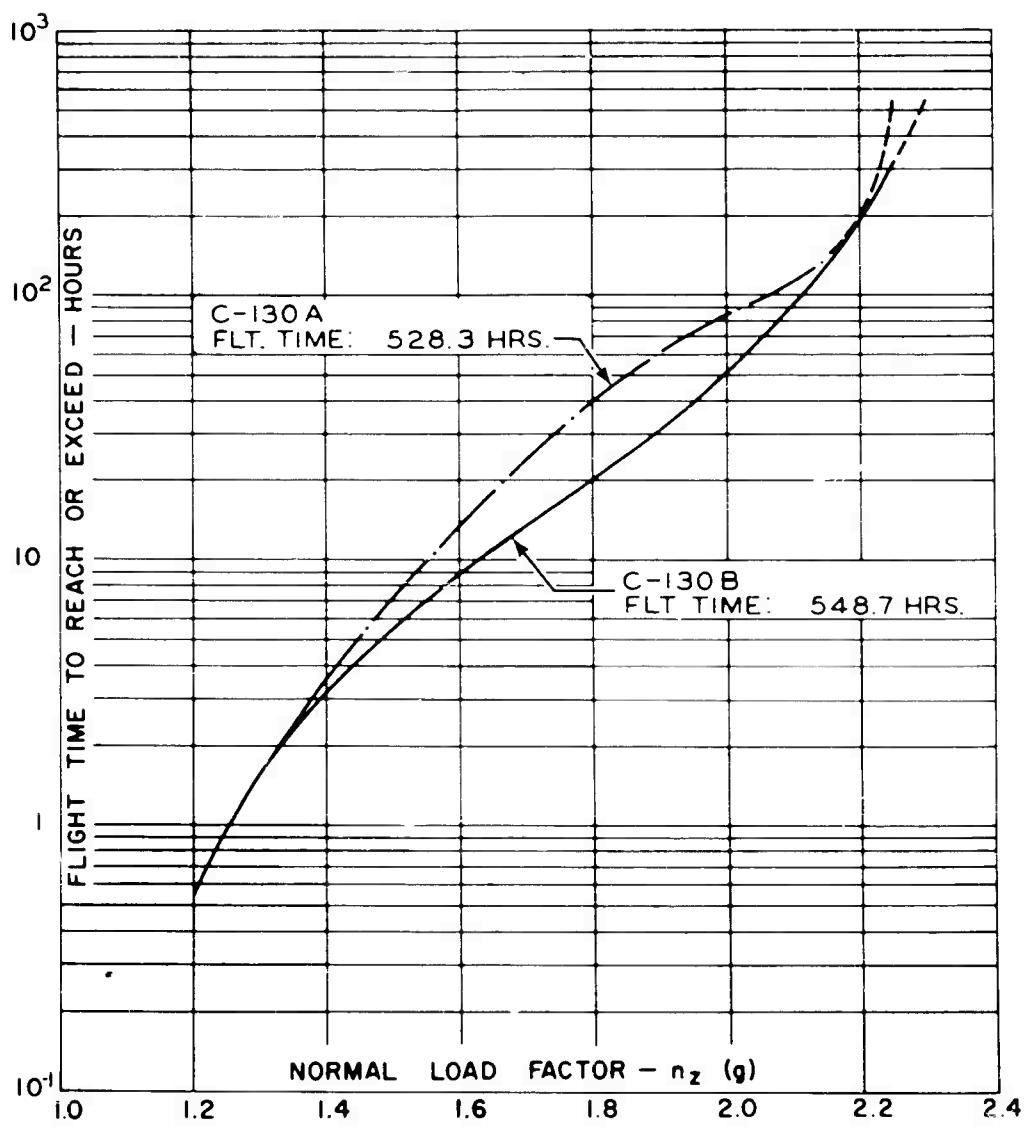


Figure 7. C-130 Probability Curves - Maneuver Loads

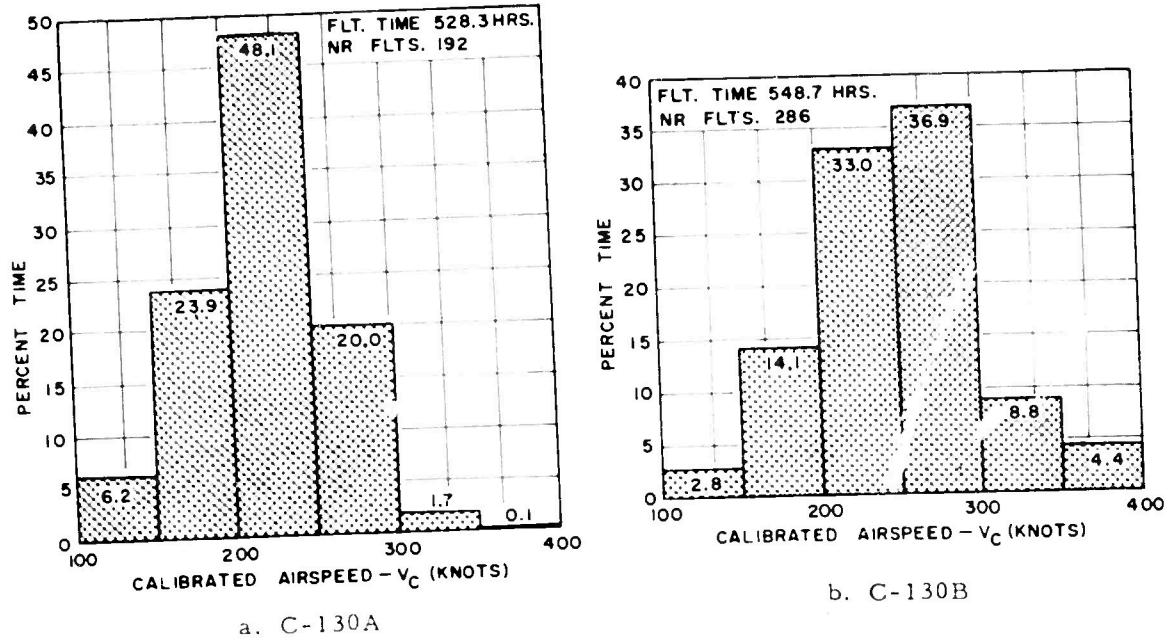


Figure 8. Percent of Total Flight Time Spent at Selected Airspeed Ranges; a. C-130A, b. C-130B

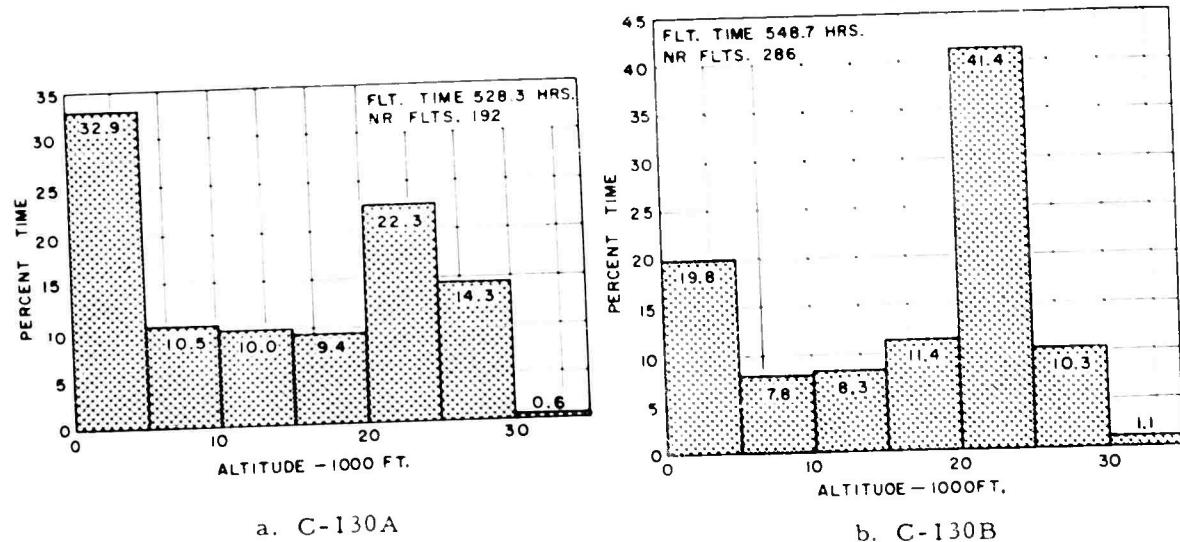


Figure 9. Percent of Total Flight Time Spent at Selected Altitude Ranges; a. C-130A, b. C-130B

Table 1

Distribution of C-130A Maneuver Load Factors by Equivalent Airspeed
and by Gross Weight Ranges for Altitudes Ranging from 0 to 5,000 Feet

65,000 to 120,000 lbs.

V_a (Knots)	LOAD FACTOR n_a (g)												Total						
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	Total
112	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	42
137	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
162	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
187	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
212	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
237	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
262	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
287	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
312	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
Total	1	1	3	3	3	3	77	162	515	192	36	38	14	9	12	1	4	1	440

65,000 to 80,000 lbs.

V_a (Knots)	LOAD FACTOR n_a (g)												Total						
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
137	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
162	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
187	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
212	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
237	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
262	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
287	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
312	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
Total	1	1	2	2	2	2	14	31	93	27	5	5	1	1	1	1	1	1	254

80,000 to 95,000 lbs.

V_a (Knots)	LOAD FACTOR n_a (g)												Total						
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
137	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
162	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
187	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
212	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
237	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
262	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
287	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
312	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
Total	1	1	3	3	3	3	14	31	93	27	5	5	1	1	1	1	1	1	254

95,000 to 110,000 lbs.

V_a (Knots)	LOAD FACTOR n_a (g)												Total						
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
137	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
162	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
187	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
212	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
237	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
262	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
287	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
312	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
Total	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	140

110,000 to 120,000 lbs.

V_a (Knots)	LOAD FACTOR n_a (g)												Total						
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
137	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
162	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
187	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
212	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
237	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
262	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
287	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
312	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
Total	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50

Table 2

Distribution of C-130A Maneuver Load Factors by Equivalent Airspeed
and by Gross Weight Ranges for Altitudes Ranging from 5,000 to 15,000 Feet

65,000 to 120,000 lbs.

V _a (Knots)	LOAD FACTOR $\alpha_1(\bar{g})$													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	2	12	8	1	1	1	1	1	1	1	1	1	1	1	1	1	24
137	1	1	1	6	10	23	4	1	1	1	1	1	1	1	1	1	1	1	44
162	1	1	1	1	11	41	5	1	1	1	1	1	1	1	1	1	1	1	48
187	1	1	1	1	10	41	12	2	1	1	1	1	1	1	1	1	1	1	22
212	1	1	1	1	10	37	6	4	2	1	1	1	1	1	1	1	1	1	62
237	1	1	1	1	11	34	14	2	1	1	1	1	1	1	1	1	1	1	84
262	1	1	1	1	14	34	17	2	1	1	1	1	1	1	1	1	1	1	58
287	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	6
312	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	1	1	2	18	71	219	62	11	8	3	1	1	1	1	1	1	1	1	198

65,000 to 80,000 lbs.

V _a (Knots)	LOAD FACTOR $\alpha_2(\bar{g})$													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8
137	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10
162	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12
187	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
212	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
237	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18
262	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
287	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22
312	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24
Total	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	54

80,000 to 95,000 lbs.

V _a (Knots)	LOAD FACTOR $\alpha_3(\bar{g})$													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8
137	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10
162	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12
187	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
212	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
237	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18
262	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
287	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22
312	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24
Total	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	54

95,000 to 110,000 lbs.

V _a (Knots)	LOAD FACTOR $\alpha_4(\bar{g})$													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8
137	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10
162	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12
187	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
212	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
237	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18
262	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
287	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22
312	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24
Total	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	54

110,000 to 120,000 lbs.

V _a (Knots)	LOAD FACTOR $\alpha_5(\bar{g})$													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
137	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
162	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
187	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
212	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
237	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
262	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
287	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
312	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6

Table 3

Distribution of C-130A Maneuver Load Factors by Equivalent Airspeed
and by Gross Weight Ranges for Altitudes Ranging from 15,000 to 25,000 Feet

65,000 to 120,000 lbs.

V _e Knots	LOAD FACTOR (g's)												Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3
112							1	1	1	1								1
137							2	1	11	1								1
162							2	25	26	5	1							1
187							3	22	57	14	4							1
212							3	22	58	17	1							1
237							4	32	4	2								1
262							4	9	2	2								1
287							5	1	1	1								1
312							5	1	1	1								1
Total	1	1	1	1	1	1	11	85	188	41	16	2	1	1	1	1	1	133

65,000 to 80,000 lbs.

V _e Knots	LOAD FACTOR (g's)												Total						
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112							1	1	1	1								1	
137							1	1	1	1								1	
162							1	2	1	1								1	
187							1	1	1	1								1	
212							1	1	1	1								1	
237							1	1	1	1								1	
262							1	1	1	1								1	
287							1	1	1	1								1	
312							1	1	1	1								1	
Total	1	1	1	1	1	1	1	10	32	1	1	1	1	1	1	1	1	1	48

80,000 to 95,000 lbs.

V _e Knots	LOAD FACTOR (g's)												Total						
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112							1	1	1	1								1	
137							2	2	2	2								1	
162							2	1	1	1								1	
187							2	1	1	1								1	
212							2	1	1	1								1	
237							2	1	1	1								1	
262							2	1	1	1								1	
287							2	1	1	1								1	
312							2	1	1	1								1	
Total	1	1	1	1	1	1	1	1	4	4	1	1	1	1	1	1	1	1	24

95,000 to 110,000 lbs.

V _e Knots	LOAD FACTOR (g's)												Total						
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112							1	1	1	1								1	
137							1	1	1	1								1	
162							1	1	1	1								1	
187							1	1	1	1								1	
212							1	1	1	1								1	
237							1	1	1	1								1	
262							1	1	1	1								1	
287							1	1	1	1								1	
312							1	1	1	1								1	
Total	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24

110,000 to 120,000 lbs.

V _e Knots	LOAD FACTOR (g's)												Total						
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112							1	1	1	1								1	
137							1	1	1	1								1	
162							1	1	1	1								1	
187							1	1	1	1								1	
212							1	1	1	1								1	
237							1	1	1	1								1	
262							1	1	1	1								1	
287							1	1	1	1								1	
312							1	1	1	1								1	
Total	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table 4

Distribution of C-130A Maneuver Load Factors by Equivalent Airspeed
and by Gross Weight Ranges for Altitudes Ranging from 25,000 to 35,000 Feet

65,000 to 110,000 lbs.

V _e (Knots)	LOAD FACTOR $\frac{L}{W} \times 10^3$													Total					
	0.1	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	6	1	1	1	1	1	1	1	1	1	1	1	13
137	1	1	1	1	1	1	1	1	1	1	1	1	8
162	1	1	1	1	1	1	1	1	1	1	1	1	34
187	1	1	1	1	1	1	1	1	1	1	1	1	17
212	1	1	1	1	1	1	1	1	1	1	1	1	6
237	1	1	1	1	1	1	1	1	1	1	1	1	1
262	1	1	1	1	1	1	1	1	1	1	1	1	2
287	1	1	1	1	1	1	1	1	1	1	1	1	1
312	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	1	1	1	1	1	1	6	19	62	8	3	2	1	1	1	1	1	1	100

65,000 to 80,000 lbs.

V _e (Knots)	LOAD FACTOR $\frac{L}{W} \times 10^3$													Total					
	0.1	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	2
137	1	1	1	1	1	1	1	1	1	1	1	1	4
162	1	1	1	1	1	1	1	1	1	1	1	1	2
187	1	1	1	1	1	1	1	1	1	1	1	1	2
212	1	1	1	1	1	1	1	1	1	1	1	1	2
237	1	1	1	1	1	1	1	1	1	1	1	1	2
262	1	1	1	1	1	1	1	1	1	1	1	1	2
287	1	1	1	1	1	1	1	1	1	1	1	1	2
312	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	11

80,000 to 95,000 lbs.

V _e (Knots)	LOAD FACTOR $\frac{L}{W} \times 10^3$													Total					
	0.1	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	11
137	1	1	1	1	1	1	1	1	1	1	1	1	11
162	1	1	1	1	1	1	1	1	1	1	1	1	11
187	1	1	1	1	1	1	1	1	1	1	1	1	11
212	1	1	1	1	1	1	1	1	1	1	1	1	11
237	1	1	1	1	1	1	1	1	1	1	1	1	11
262	1	1	1	1	1	1	1	1	1	1	1	1	11
287	1	1	1	1	1	1	1	1	1	1	1	1	11
312	1	1	1	1	1	1	1	1	1	1	1	1	11
Total	1	1	1	1	1	1	1	14	55	7	1	2	1	1	1	1	1	1	84

95,000 to 110,000 lbs.

V _e (Knots)	LOAD FACTOR $\frac{L}{W} \times 10^3$													Total					
	0.1	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	1
137	1	1	1	1	1	1	1	1	1	1	1	1	1
162	1	1	1	1	1	1	1	1	1	1	1	1	1
187	1	1	1	1	1	1	1	1	1	1	1	1	1
212	1	1	1	1	1	1	1	1	1	1	1	1	1
237	1	1	1	1	1	1	1	1	1	1	1	1	1
262	1	1	1	1	1	1	1	1	1	1	1	1	1
287	1	1	1	1	1	1	1	1	1	1	1	1	1
312	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9

Table 5

Distribution of C-130B Maneuver Load Factors by Equivalent Airspeed
and by Gross Weight Ranges for Altitudes Ranging from 0 to 5,000 Feet

75,000 to 130,000 lbs.

V _e (Knots)	LOAD FACTOR (g's)													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	57	19	11	2	1	1	1	1	1	1	1	1	106
137	2	2	2	2	2	2	186	63	38	1	1	1	1	1	1	1	1	1	331
162	3	3	3	3	3	3	195	72	42	1	1	1	1	1	1	1	1	1	248
187	4	4	4	4	4	4	141	24	20	10	6	1	1	1	1	1	1	1	140
212	1	1	1	1	1	1	136	90	33	12	10	4	4	3	1	1	1	1	425
237	2	2	2	2	2	2	10	73	12	1	1	1	1	1	1	1	1	1	65
262	3	3	3	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	25
287	4	4	4	4	4	4	1	1	1	1	1	1	1	1	1	1	1	1	6
312	5	5	5	5	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	1	6	19	68	214	727	121	104	42	24	11	11	6	5	5	5	5	2	1578

75,000 to 80,000 lbs.

V _e (Knots)	LOAD FACTOR (g's)													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
137	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	9
162	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
187	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
212	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
237	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
262	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
287	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
312	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Total	1	2	14	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	16

80,000 to 95,000 lbs.

V _e (Knots)	LOAD FACTOR (g's)													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
137	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19
162	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	46
187	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	49
212	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	52
237	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	54
262	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	56
287	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	58
312	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	59
Total	2	10	20	45	254	65	4	6	4	1	1	1	1	1	1	1	1	1	316

95,000 to 110,000 lbs.

V _e (Knots)	LOAD FACTOR (g's)													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	5	23	7	6	1	1	1	1	1	1	1	1	43
137	2	2	2	2	2	2	16	125	33	1	2	1	1	1	1	1	1	1	226
162	3	3	3	3	3	3	2	16	95	25	1	1	1	1	1	1	1	1	163
187	4	4	4	4	4	4	24	41	44	15	10	6	4	2	1	1	1	1	190
212	5	5	5	5	5	5	21	76	34	62	26	9	1	1	1	1	1	1	280
237	6	6	6	6	6	6	7	19	13	9	3	1	1	1	1	1	1	1	62
262	7	7	7	7	7	7	6	2	1	1	1	1	1	1	1	1	1	1	23
287	8	8	8	8	8	8	4	2	1	1	1	1	1	1	1	1	1	1	9
312	9	9	9	9	9	9	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	1	4	6	42	135	451	192	17	10	14	17	8	5	5	5	5	5	2	904

110,000 to 130,000 lbs.

V _e (Knots)	LOAD FACTOR (g's)													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1	1	1	1	1	1	2	19	9	4	1	1	1	1	1	1	1	1	40
137	2	2	2	2	2	2	1	1	7	6	1	1	1	1	1	1	1	1	43
162	3	3	3	3	3	3	6	2	16	9	1	2	1	1	1	1	1	1	37
187	4	4	4	4	4	4	1	17	34	17	5	2	2	3	1	1	1	1	65
212	5	5	5	5	5	5	2	6	33	12	4	1	1	1	1	1	1	1	60
237	6	6	6	6	6	6	1	1	6	2	2	1	1	1	1	1	1	1	11
262	7	7	7	7	7	7	1	1	1	1	1	1	1	1	1	1	1	1	1
287	8	8	8	8	8	8	1	1	1	1	1	1	1	1	1	1	1	1	1
312	9	9	9	9	9	9	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	1	5	12	108	55	16	6	5	5	4	1	1	1	1	1	1	1	2	242

Table 6

Distribution of C-130B Maneuver Load Factors by Equivalent Airspeed
and by Gross Weight Ranges for Altitudes Ranging from 5,000 to 15,000 Feet

75,000 to 130,000 lbs.

V_e (Knots)	LOAD FACTOR - $n_g(g)$													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112							1	3	15	6	2	1							28
137							1	1	8	2	1								15
142							1	1	14	3	2								12
187							1	1	12	2	2								10
212							1	1	12	2	2								12
217							1	1	12	2	2								12
262							1	1	12	2	2								12
287							1	1	12	2	2								12
312							1	1	12	2	2								12
Total							1	3	10	50	167	57	20	4	1	1	1	1	319

75,000 to 80,000 lbs.

V_e (Knots)	LOAD FACTOR - $n_g(g)$													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112																			7
137																			1
142																			1
187																			1
212																			2
217																			1
262																			1
287																			1
312																			1
Total																			12

80,000 to 95,000 lbs.

V_e (Knots)	LOAD FACTOR - $n_g(g)$													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112							1	1											2
137							1	1											5
142							1	1											1
187							1	1											6
212							1	1											1
217							1	1											1
262							1	1											1
287							1	1											1
312							1	1											1
Total							4	2	16	3									61

95,000 to 110,000 lbs.

V_e (Knots)	LOAD FACTOR - $n_g(g)$													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112							1	1	1	1	1	1	1						26
137							1	1	1	1	1	1	1						10
142							1	1	1	1	1	1	1						6
187							1	1	1	1	1	1	1						10
212							1	1	1	1	1	1	1						12
217							1	1	1	1	1	1	1						12
262							1	1	1	1	1	1	1						12
287							1	1	1	1	1	1	1						12
312							1	1	1	1	1	1	1						12
Total							1	3	6	37	105	35	16	4	1	1	1	1	216

110,000 to 130,000 lbs.

V_e (Knots)	LOAD FACTOR - $n_g(g)$													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112							1	2											3
137							1	2											5
142							1	2											9
187							1	2											4
212							1	2											6
217							1	2											7
262							1	2											3
287							1	2											3
312							1	2											3
Total							3	23	3	1									30

Table 7

Distribution of C-130B Maneuver Load Factors by Equivalent Airspeed
and by Gross Weight Ranges for Altitudes Ranging from 15,000 to 25,000 Feet

75,000 to 130,000 lbs.

V _e (Knots)	LOAD FACTOR (n _g /g)													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	-	-	-	-	-	-	2	7	4	1	-	-	-	-	1	-	-	-	14
137	-	-	-	-	-	-	3	8	0	-	-	-	-	-	2	-	-	-	22
162	-	-	-	-	-	-	1	5	27	15	3	1	1	-	-	-	-	-	57
187	-	-	-	-	-	-	4	14	36	17	4	-	-	-	-	-	-	-	76
212	-	-	-	-	-	-	8	17	40	13	5	1	-	-	-	-	-	-	78
237	-	-	-	-	-	-	4	17	4	5	1	-	-	-	-	-	-	-	32
262	-	-	-	-	-	-	20	2	1	2	-	-	-	-	-	-	-	-	26
287	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	4
312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total:	-	-	-	-	-	-	1	12	50	154	58	22	5	1	1	1	1	1	309

75,000 to 80,000 lbs.

V _e (Knots)	LOAD FACTOR (n _g /g)													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
137	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
187	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
237	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
262	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total:	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-

80,000 to 95,000 lbs.

V _e (Knots)	LOAD FACTOR (n _g /g)													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	11
137	-	-	-	-	-	-	2	4	1	2	-	-	-	-	-	-	-	-	22
162	-	-	-	-	-	-	4	15	3	1	-	-	-	-	-	-	-	-	52
187	-	-	-	-	-	-	8	21	5	1	-	-	-	-	-	-	-	-	58
212	-	-	-	-	-	-	1	9	1	1	-	-	-	-	-	-	-	-	16
237	-	-	-	-	-	-	4	1	2	-	-	-	-	-	-	-	-	-	5
262	-	-	-	-	-	-	4	1	2	-	-	-	-	-	-	-	-	-	-
287	-	-	-	-	-	-	2	1	1	-	-	-	-	-	-	-	-	-	-
312	-	-	-	-	-	-	2	1	1	-	-	-	-	-	-	-	-	-	-
Total:	-	-	-	-	-	-	5	20	4*	1*	8	8	1	-	-	-	-	-	111

95,000 to 110,000 lbs.

V _e (Knots)	LOAD FACTOR (n _g /g)													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	42
137	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	42
162	-	-	-	-	-	-	23	12	2	-	-	-	-	-	-	-	-	-	42
187	-	-	-	-	-	-	12	12	2	-	-	-	-	-	-	-	-	-	45
212	-	-	-	-	-	-	12	12	2	-	-	-	-	-	-	-	-	-	45
237	-	-	-	-	-	-	12	12	2	-	-	-	-	-	-	-	-	-	42
262	-	-	-	-	-	-	15	2	1	-	-	-	-	-	-	-	-	-	21
287	-	-	-	-	-	-	15	2	1	-	-	-	-	-	-	-	-	-	11
312	-	-	-	-	-	-	2	1	1	-	-	-	-	-	-	-	-	-	-
Total:	-	-	-	-	-	-	7	27	48	14	16	1	1	1	1	1	1	1	177

110,000 to 130,000 lbs.

V _e (Knots)	LOAD FACTOR (n _g /g)													Total					
	0.3	0.4	0.5	0.6	0.7	0.8	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	1
137	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	6
162	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	3
187	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	3
212	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	3
237	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	3
262	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	3
287	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	3
312	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	3
Total:	-	-	-	-	-	-	1	3	11	2	3	-	-	-	-	-	-	-	16

Table 8

Distribution of C-130B Maneuver Load Factors by Equivalent Airspeed
and by Gross Weight Ranges for Altitudes Ranging from 25,000 to 30,000 Feet

80,000 to 110,000 lbs.

V _a (Knots)	LOAD FACTOR $\frac{L}{W}$ (g)													Total					
	0.1	0.4	0.5	0.6	0.7	0.8	1.1	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1
137	3
152	3
167	2
212	11
237	11
262	2
287	2
312	1
Total	1	6	10	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	33

80,000 to 95,000 lbs.

V _a (Knots)	LOAD FACTOR $\frac{L}{W}$ (g)													Total					
	0.1	0.4	0.5	0.6	0.7	0.8	1.1	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1
137	4
152	4
167	2
212	11
237	6
262	2
287	2
312	1
Total	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6

95,000 to 110,000 lbs.

V _a (Knots)	LOAD FACTOR $\frac{L}{W}$ (g)													Total					
	0.1	0.4	0.5	0.6	0.7	0.8	1.1	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
112	1
137	3
152	3
167	11
212	6
237	2
262	1
287	2
312	1
Total	1	5	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27

<p style="text-align: center;">(over)</p> <p>UNCLASSIFIED</p> <p>Aerospace Ground Equipment Engineering Division, Wright-Patterson Air Force Base, Ohio SUPPRESSION OF NOISE IN GROUND SUPPORT EQUIPMENT, by Harold D. Swann, March 1961. 45 p. incl. illus. (System Nr. 102-A) (WADD-TN-6-1-6) Unclassified report.</p>	<p style="text-align: center;">(over)</p> <p>UNCLASSIFIED</p> <p>The purpose of this investigation was to determine a relatively inexpensive, palliative method of reducing the acoustical noise levels of Ground Support Equipment (GSE). The major problem was found to be the engine exhaust noise emanating from standard Air Force "Packette," air-cooled, internal combustion engines. Of lesser importance</p>	<p style="text-align: center;">(over)</p> <p>UNCLASSIFIED</p> <p>The purpose of this investigation was to determine a relatively inexpensive, palliative method of reducing the acoustical noise levels of Ground Support Equipment (GSE). The major problem was found to be the engine exhaust noise emanating from standard Air Force "Packette," air-cooled, internal combustion engines. Of lesser importance</p>	<p style="text-align: center;">(over)</p> <p>UNCLASSIFIED</p> <p>were such items as generators, air blowers, pumps, and gear trains.</p> <p>The findings of this effort indicate that the noise level of any Packette engine-driven unit of GSE can be significantly reduced, without causing deleterious effects on power output, by effective muffling and other palliative methods.</p>	<p style="text-align: center;">(over)</p> <p>UNCLASSIFIED</p>
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Transmittal of Errata Sheet,
WADD Tech Note 61-44

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Laboratory, Wright Air Development Division,
Wright-Patterson Air Force Base, Ohio.
MANEUVER LOAD DATA FROM C-130 AIR-
CRAFT, by Lawrence Phillips. March 1961.
22p. incl. illus. (Proj. 1367; Task 136 37)
(WADD TN 6 1-4) Unclassified report.**

This report presents structural flight load data from C-130A and B aircraft performing normal operations and analyses of the data. This information is intended for use in determining design criteria for future flight vehicles and in estimating the effect of these missions on a structure of this type in terms of structural fatigue and estimated life.

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This report presents structural flight load data from C-130A and B aircraft performing normal operations and analyses of the data. This information is intended for use in determining design criteria for future flight vehicles and in estimating the effect of these missions on a structure of this type in terms of structural fatigue and estimated life.

**Structures Branch, Flight Dynamics
Laboratory, Wright Air Development Division,
Wright-Patterson Air Force Base, Ohio.**
MANEUVER LOAD DATA FROM C-130 AIR-CRAFT, by Lawrence Phillips. March 1961.
22pp. incl. illus. (Proj. 1367; Task 13637)
(WADD TN 61-44) Unclassified report.

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MANEUVER LOAD DATA FROM C-130 AIR-
CRAFT, by Lawrence Phillips. March 1961.
22p. incl. illus. (Proj. 1367; Task 13637)
(WADD TN 61-44) Unclassified report.

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termining design criteria for future flight
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CRAFT, by Lawrence Phillips. March 1961.
22p. incl. illus. (Proj. 1367; Task 13637)
(WADD TN 61-44) Unclassified report.

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